UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _06/04/2008_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _10-44_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _10-44_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
       1. ☒ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   It is hereby acknowledged that the following papers have been received and placed of

record in the file: Amendment date 06/04/2008

2.   Claims 10-44 are presented for examination.

Response to Arguments

3.   Applicant's arguments with respect to claims 10-29 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

5.   Claims 10-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. As the specification discloses (¶[0006]), "web server device

comprising software modules whereby at least one first software module has first means for the

implementation of an automation functionality and second means for accessing a real time

operating system". It is directed to server is software module which direct to the software per se.

The web server device comprising only software portion still directs to software per se. It's

directed to the program itself, not a process occurring as a result of executing the program, a

machine programmed to operate in accordance with the program not a manufacture structurally

and functionally interconnected with the program in a manner which enables the program to act

as a computer component and realize its functionality. It's also clearly not directed to a

composition of matter. Therefore, it's non-statutory under 35 USC 101.

6.   Claim 28 and 30-39 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. As the specification discloses (¶[0006]), "web server

device comprising software modules whereby at least one first software module has first means

for the implementation of an automation functionality and second means for accessing a real

time operating system". It is directed to server is software module which direct to the software

per se. **The automation system comprising a web server, where web server only software**

portion still direct to software per se.

7.   Claim 29 and 40-44 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claim 29 discloses, "A **computer readable medium**

encoded with software" However, there are no explicit evidence presented in the disclosure to

support the phrase "computer readable medium" is intended to cover anything but tangible,

physical articles or objects so as to constitute a manufacture within the meaning of 35 USC §

101. It is believed that this raises the question of whether the claimed invention intends for the

medium to include signals or waves. Signal and waves are form of energy which is not a

patentable categories under 35 U.S.C. 101.

                              Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

10.   Claims 10-31, 39-40 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Swales (US 6,321,272) in view of Kuchlin et al. ("HIGHROBOT: Telerobotics in the

Internet", copyright 1997).

11.   Regarding claim 10, Swales teaches a web server device (Web server 30 see Fig.2 block

30) comprising software modules (Fig.3 web server module), a second mechanism

(communication link between Ethernet driver 48 and network 42 see Fig. 3) for accessing a real-

time operating system (A real time operating system 44 controls the interaction between the

components see col.5 lines 9-10). Swales further teaches programmable controller use to control

the process control system "field of programmable controllers and more particularly to a system

for the exchange of time-critical information between control devices coupled to an intranetwork

such as would be common in the fields of factory automation and industrial process control" see

col.1 lines 15-20.

        Swales does not explicitly disclose web server device comprises first mechanism for

implementing an automation functionality.

        Kuchlin teaches a web server device comprises software modules, wherein at least one

first software module comprises first mechanism for implementing an automation functionality

(HighRobot control system including automation functionalities of PLC "With the use of the HIGHROBOT control system in our robot cell we replaced three control systems (including two PLCs). The PLC tasks can be processed on the HIGHROBOT control see Kuchlin: section 3.2 Highrobot Networking"). Kuchlin further discloses, an open working station based robot control which has full access to the Internet and its Web-Technologies (see Kuchlin: abstract). Furthermore, Kuchlin discloses a web server carrying out web server functionalities as well as industrial automation functionalities (see Kuchlin: section 1, section2, section 3.2 section4 and section 4.1).

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales and Kuchlin before them at the time the invention was made to modify the web server device of Swales to include (or to use, etc.) a web server device comprises software modules, wherein at least one first software module comprises first mechanism for implementing an automation functionality as taught by Kuchlin.

One of ordinary skill in the art would have been motivated to make this modification in order to high level networking purpose in view of Kuchlin.

12.   Regarding claim 11, Swales together with Kuchlin taught the web server device according to claim 10 as described hereinabove. Swale further teaches wherein the web server comprises a connection to a communication network (web server module 30 within web server connects to network 42 see Swale: Fig.3 block 30 and 42).

13.   Regarding claim 12, Swales together with Kuchlin taught the web server device according to claim 11 as described hereinabove. Swale further teaches wherein the communication network is the Internet (the relationship between a user 2 at a remote location

and an Internet web site 4 used for monitoring a process control system 6 through Internet 14 see Swale: col.3 lines 56-59; Fig.1).

14.   Regarding claim 13, Swales together with Kuchlin taught the web server device according to claim 10 as described hereinabove. Swale further teaches wherein Internet protocols are provided for communication between the software modules and for communication between the software modules and components outside of the web server (TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swale: col.1 lines 56-61; col.4 lines 6-7).

15.   Regarding claim 14, claim 14 is rejected for the same reason as claim 13 as set forth hereinabove.

16.   Regarding claim 15, Swales together with Kuchlin taught the web server device according to claim 10 as described hereinabove. Swale further teaches wherein the web server is adapted for configuration and administration of the software modules (administrator access the web server to control the backplane application "The gateway 72 contains a firewall to provide the necessary security and couples the PLC system 70 through an intranetwork 74 controlled by a network administrator 76" see Swale: col.9 lines 65-67 and col.10 lines 1-12).

17.   Regarding claims 16 and 17, they are rejected for the same reason as claim 15 as set forth hereinabove.

18.   Regarding claim 18, Swales together with Kuchlin taught the web server device

according to claim 10 as described hereinabove. Swale further teaches wherein the first software

module comprises a connection to an industrial automation system (interface between the general

purpose network and the **industrial control system** that will carry on-demand traffic from

computer systems, operator terminals, and alarm systems see Swale: col.2 lines 35-39).

19.   Regarding claims 19-21, they are rejected for the same reason as claim 18 as set forth

hereinabove.

20.   Regarding claim 22, Swales together with Kuchlin taught the web server device

according to claim 10 as described hereinabove. Swale further teaches wherein the web server

comprises a connection to Internet via a firewall (A firewall or security for the overall system

can be included in the Web Server 30, but is generally maintained as part of the network

interface 16 see Swale: col.4 lines 39-41).

21.   Regarding claims 23-24, they are rejected for the same reason as claim 22 as set forth

hereinabove.

22.   Regarding claim 25, Swales together with Kuchlin taught the web server device

according to claim 10 as described hereinabove. Swale further teaches wherein the web server is

connected via a communication network to a web browser as a operating and monitoring system

(The browser 10 functions as a remote human-machine interface or HMI control of the process

control system and user at a remote location utilizing a browser which controlling a

programmable controller system see Swale: col.4 lines 31-33; Fig.7).

23.   Regarding claims 26-27, they are rejected for the same reason as claim 25 as set forth

hereinabove.

24.   Regarding claim 28, claim 28 is rejected for the same reason as claim 10 as set forth

hereinabove. Regarding claim 28, Swales together with Kuchlin taught the claimed device,

therefore they teach the claimed automation system (It would be desirable to develop an

automation control system whereby these problems are minimized, using the same type of

general purpose networks see Swales: col.2 lines 18-24).

25.   Regarding claim 29, claim 29 is rejected for the same reason as claim 10 as set forth

hereinabove. Regarding claim 29, Swales together with Kuchlin taught the claimed system,

therefore they teach the claimed computer readable medium encoded with software.

26.   Regarding claim 30, Swales together with Kuchlin taught the web server device

according to claim 28 as described hereinabove. Kuchlin further comprising a plurality of web

server, wherein the plurality of web server have extension modules, wherein a first extension

module is connected to an input/output module of the automation system (input and output for

the automation functionalities "The PLC tasks san be processed on the HighRobot control and

input and output is made via the variable number field bus I/O devices" see Kuchlin: Section

3.2).

27.   Regarding claim 31, Swales together with Kuchlin taught the web server device

according to claim 30 as described hereinabove. Kuchlin further teaches wherein the first

extension module has functions of a programmable logic control (HighRobot control system

including automation functionalities of PLC "With the use of the HIGHROBOT control system

in our robot cell we replaced three control systems (including two PLCs). The PLC tasks can be

processed on the HIGHROBOT control see Kuchlin: section 3.2 Highrobot Networking").

28.   Regarding claim 39, Swales together with Kuchlin taught the web server device

according to claim 30 as described hereinabove. Swales further teaches wherein a web server of

the plurality of web server has an extension module connected to a SQL7 server (connected to a

database for database lookup "A simple file transfer or database lookup by someone's portable

computer could inadvertently disrupt the fragile assumptions about transmission bandwidth" see

Swales col.1 lines 21-44) and a further extension module connects to an industrial process

(industrial control system control industrial processes "Accordingly, the principal object of the

present invention is to provide an interface between an industrial control system and a general

purpose network such as Ethernet" see Swales col.2 lines 28-30).

29.   Regarding claim 40 Swales together with Kuchlin taught the web server device

according to claim 29 as described hereinabove. Swales further teaches wherein an operating

system on a computer on which the web server is running comprises a standard operating system,

a realtime operating system (A real time operating system 44 controls the interaction between the

components see Swales: col.5 lines 9-10) and a web server kernel superimposed onto the

underlying operating system via a porting facility (back plane driver control the automation

controller using real time operating system "A back plane driver 56 sends commands and

receives the response to the PLC 32 over the back plane 34" see Swales: col. 5 lines 39-55).

30.   Regarding claim 43 Swales together with Kuchlin taught the computer readable medium

according to claim 29 as described hereinabove. Swales further comprising a web server kernel,

wherein the web server kernel is a basis for different software extension modules (back plane

driver control the automation controller using real time operating system "A back plane driver 56

sends commands and receives the response to the PLC 32 over the back plane 34" see Swales:

col. 5 lines 39-55), wherein a seventh extension module with an automation functionality has a link to a process and a link to an interface with a realtime operating system (A real time operating system 44 controls the interaction between the components see Swales: col.5 lines 9-10), wherein the real time operating system is capable to react to random external events within a specifiable and guaranteeable time (Determinism is a measure of ensuring that a real-time event will be handled in a known period of time see Swales: col.1 lines 23-25), wherein a reaction time is in a microsecond range ("Using a 10% load as a rule of thumb and the fact that each transaction generates approximately 100 microseconds of traffic, a 1 millisecond per slave device can be used to calculate a desired scan rate" see col. 13 lines 6-10).

31.   Regarding claim 44, Swales together with Kuchlin taught the computer readable medium according to claim 29 as described hereinabove. Kuchlin further teaches wherein a web server kernel of the web server is a common platform for extension modules, wherein at least one extension module has a functionality of a programmable logic control or a computer numerical control (HighRobot control system including automation functionalities of PLC "With the use of the HIGHROBOT control system in our robot cell we replaced three control systems (including two PLCs). The PLC tasks can be processed on the HIGHROBOT control see Kuchlin: section 3.2 Highrobot Networking").

32.   **Claims 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales (US 6,321,272) in view of Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", copyright 1997) and in further in view of Sharood et al. (US 2001/0025349 A1).**

33.   Regarding claim 32, Swales together with Kuchlin taught the web server device

according to claim 28 as described hereinabove. Kuchlin further comprising a plurality of web

server, wherein the plurality of web server have extension modules,

Swales together with Kuchlin does not explicitly disclose wherein a second extension

module is connected to a converter, wherein the second extension module has a computer

numerical control functionality so that a computer-controlled machine tool is controlled based

upon the second extension module. Kuchlin further teaches wherein the computer-controlled

machine tool is used for a high-speed and precision manufacture of turned and milled parts (user

controls the SCARA robot arm through the motor controller for transfer system for controlling

industrial parts See Kuchlin: Figure 1 HighRobot Universal Control and parts of the controlled

robot cell).

Sharood teaches wherein a second extension module is connected to a converter, wherein

the second extension module has a computer numerical control functionality so that a computer-

controlled machine tool is controlled based upon the second extension module (control server

connected to bus converter and control the automate devices "The EIB LAN uses a bus converter

to connect the LAN to the control server 100 using an available RS-232 port of the control server

100" Sharood: ¶[0216])

It would have been obvious to one of ordinary skill in the art, having the teachings of

Swales through Sharood before them at the time the invention was made to modify the web

server device of Swales and Kuchlin to include (or to use, etc.) wherein a second extension

module is connected to a converter, wherein the second extension module has a computer

numerical control functionality so that a computer-controlled machine tool is controlled based upon the second extension module as taught by Sharood.

One of ordinary skill in the art would have been motivated to make this modification in order to control another separate industrial device for universal purpose in view of Sharood.

34.   Regarding claim 33, Swales together with Kuchlin taught the web server device according to claim 31 as described hereinabove. Swales together with Kuchlin does not explicitly disclose wherein a second extension module is connected to a converter.

Sharood teaches wherein a second extension module is connected to a converter (control server connected to bus converter and control the automate devices "The EIB LAN uses a bus converter to connect the LAN to the control server 100 using an available RS-232 port of the control server 100" Sharood: ¶[0216]).

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales through Sharood before them at the time the invention was made to modify the web server device of Swales and Kuchlin to include (or to use, etc.) wherein a second extension module is connected to a converter as taught by Sharood.

One of ordinary skill in the art would have been motivated to make this modification in order to transformation and conversation purpose in view of Sharood.

35.   Regarding claim 34, Swales through Sharood taught the web server device according to claim 33 as described hereinabove. Sharood further teaches wherein a third extension module controls a drive (control server control the coupler drive "As shown in FIG. 21, the control server 10 communicates with room thermostats through the heating LAN while bus couplers drive on/off valves, proportional valves, and dampers" see Sharood: ¶[0219]).

36.   Regarding claim 35, Swales through Sharood taught the web server device according to

claim 34 as described hereinabove. Sharood further teaches wherein a fourth extension module

controls a valve (control server control the proportional valves "As shown in FIG. 21, the control

server 10 communicates with room thermostats through the heating LAN while bus couplers

drive on/off valves, proportional valves, and dampers" see Sharood: ¶[0219]).

37.   Regarding claim 35, Swales through Sharood taught the web server device according to

claim 34 as described hereinabove. Kuchlin further teaches wherein a web server of the plurality

of web server is an embedded web server (web server have embedded PLC functionalities that

able to control the automation device see Kuchlin: Section 3.2).

38.   Regarding claim 37, Swales through Sharood taught the web server device according to

claim 36 as described hereinabove. Kuchlin further teaches wherein the embedded web server is

implemented as a single-chip solution inside a personal computer (Universal control

multiprocessor including CAN interface card inside a user computer to control the robot arm see

Kuchlin: Figure 1).

39.   Regarding claim 38, Swales through Sharood taught the web server device according to

claim 36 as described hereinabove. Swales further teaches wherein a web server of the plurality

of web server is connected to the internet via a firewall (A firewall or security for the overall

system can be included in the Web Server 30, but is generally maintained as part of the network

interface 16 see Swale: col.4 lines 39-41).

40.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swales (US

6,321,272) in view of Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", copyright

1997) and in further in view of Rathjen et al. (US 2004/0015383 A1).

41.   Regarding claim 41, Swales together with Kuchlin taught the web server device

according to claim 29 as described hereinabove. Kuchlin further comprising further comprising a

web server kernel, wherein the web server kernel is a basis for different software extension

modules (universal control system that not only control robot arm but also other peripheral

device like digital I/Os or transfer systems see Kuchlin: section 1, section 2, section 3.2, section

4, Section 4.1), wherein a first extension module is used for a provision of web pages (HTML

and Java see Kuchlin: Section 4.1).

        Swales together with Kuchlin does not explicitly disclose a second extension module is

used as an XML parser.

        Rathjen teaches wherein a second extension module is used as an XML parser (using

XML web authoring language see Rathjen: ¶[0008]).

        It would have been obvious to one of ordinary skill in the art, having the teachings of

Swales through Rathjen before them at the time the invention was made to modify the web

server device of Swales and Kuchlin to include (or to use, etc.) wherein a second extension

module is used as an XML parser as taught by Rathjen.

        One of ordinary skill in the art would have been motivated to make this modification in

order to allows the user to define own proprietary data syntax then build own proprietary for

customize purpose in view of Rathjen.

42.   Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swales (US

6,321,272) in view of Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", copyright

1997,) in view of Rathjen et al. (US 2004/0015383 A1) and further in view of Soergel et al. (US 6,529,780).

43.   Regarding claim 42 Swales through Rathjen taught the web server device according to claim 41 as described hereinabove. Kuchlin further teaches a fourth extension module offers Java functionality (Java Kuchlin: section 4.1). Rathjen further teach further comprising a web server kernel, wherein a third extension module serves to connect up a Profibus connection (The control system 13 is connected to a computer 14 via a profibus 15. Instead of the profibus 15, e.g., another known bus, such as an ISA bus or an MPI bus can also be used see Rathjen: ¶[0039]), and a sixth extension module is used for processing XML data (using XML web authoring language Rathjen: ¶[0008]).

Swales through Rathjen does not explicitly disclose a fifth extension module processes signals from a webcam.

Soergel teaches a fifth extension module processes signals from a webcam (camera for immediate dialogue "Finally, it is proposed that the engineering centre be designed as a multi-station project engineering, design, commissioning or operational optimization office by using monitors, computer equipment and cameras, it being possible for immediate dialogue, drawing changes or software input to be supplemented or replaced by remote transmission via speech and video image" see Soergel: col.3 lines 42-48).

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales through Rathjen before them at the time the invention was made to modify the web server device of Swales and Kuchlin to include (or to use, etc.) a fifth extension module processes signals from a webcam as taught by Rathjen.

One of ordinary skill in the art would have been motivated to make this modification in order for monitoring purpose in view of Rathjen.

Conclusion

The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.05(c)**.

The following reference teaches execution of trial data.

- US 6, 311,101 (Kastner) teaches remote monitoring or remote maintenance an injection molding machine

- US 2002/0065898 A1 (Leontiev et al.) teach control and supervision of instruments and apparatus such as controllers, panel meters, transmitter, signal conditioners and the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 14, 2008
GL
Patent Examiner

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit

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